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#18339**Nav1.1 (D8X1Y) Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 250	Source/Isotype: Rabbit IgG	UniProt ID: #P35498	Entrez-Gene Id: 6323
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Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	Nav1.1 (D8X1Y) Rabbit mAb recognizes endogenous levels of total Nav1.1 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg471 of human Nav1.1 protein.	
Background	<p>Voltage gated sodium channels are composed of a large alpha subunit and auxiliary beta subunits. The alpha subunit has 4 homologous domains, with each domain containing 6 transmembrane segments. These segments function as the voltage sensor and sodium permeable pore. Upon change of membrane potential, the sodium channel is activated, which allows sodium ions to flow through (1,2). When associated with beta subunits or other accessory proteins, the alpha subunit is regulated at the level of cell surface expression, kinetics, and voltage dependence (3,4).</p> <p>There are 9 mammalian alpha subunits, named Nav1.1-Nav1.9 (5). These alpha subunits differ in tissue specificity and biophysical functions (6,7). Seven of these subunits are essential for the initiation and propagation of action potentials in the central and peripheral nervous system while Nav1.4 and Nav1.5 are mainly expressed in skeletal muscle and cardiac muscle (8,9). Mutations in these alpha channel subunits have been identified in patients with epilepsy, seizure, ataxia, sensitivity to pain, and cardiomyopathy (reviewed in 10).</p> <p>Nav1.1 is a type I alpha subunit and is mainly expressed in brain and peripheral nerves. Mutations in the Nav1.1 encoding gene, <i>SCN1A</i>, are associated with a wide spectrum of childhood epilepsies, including generalized epilepsy with febrile seizures plus (11) and Dravet syndrome (12,13)</p>	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: Human M: Mouse R: Rat
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